











# 4.5 CAPITAL IMPROVEMENTS PROGRAM

The Capital Improvements Program (CIP) describes program elements associated with base development such as architectural compatibility guidelines, landscape development guidelines, and demolition program. The CIP also identifies major facility projects for various program avenues in conformance with the Facility Board approved programs.

# 4.5.1 Architecture Compatibility Guidelines

Architectural standards for Good-fellow AFB are specified AFI 32-1008, AFI 32-1024, AETC Standards for Installation Excellence, and in various Air Force design guides for specific type facilities. The following are general guidelines specific to Goodfellow's architectural compatibility:

Power lines are underground for new construction and continued e ffort to bury the few remaining ove rhead lines. Exterior lighting should be square metal poles, shoe-box fixture and bronze anodized finish.

Strive for ground floor mechanical rooms and screened ground mounted mechanical equipment avoiding roof mounted equipment unless absolutely ne cessary.

The number of signs will be held to the minimum required for identific ation and customer service. Signage requirements must adhere to AETCI 32-1001 and the Standard for Installation Excellence. Signage must be submitted for review and approval from 17 CES/CECB.

The main architectural theme for the majority of the base consists of Elgin red brick (Elgin Butler No. 6556) with bronze standing seam metal roofs. Renovation of existing buildings can include stucco siding and standing seam metal roofs. When applicable, brick trim is incorporated to match or architectur-





Dormitory — Elgin Red Brick

Base Fire Station — Elgin Red Brick with DFIS/Stucco

turally tie together renovated facilities with adjacent newly constructed facilities. The color scheme for facilities are earth tones. Bronze colored roofs are preferred, however, light earth tone composition roofs can be used on a limited basis where compatible with surrounding structures.

Large industrial facilities are constructed of metal siding with metal roofs. Colors are earth tones, typ ically light beige walls and bronze

colored roofs. New facilities within the intelligence training area should be constructed of reddish-orange brick, similar to existing buildings in the area. Bronze standing seam metal roof or flat built-up roof is a p-propriate in this area.

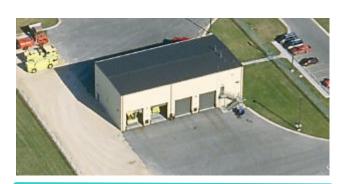
Architectural guidelines are shown in the matrix for the different types of new or renovated (vintage) facil ities.



Vintage Gymnasium — EFIS/Stucco



Intelligence Training — Other Brick



Fire Truck Maintenance Building

ARCHITECTURE	Elgin Red Brick	Other Brick	PreCast Con-	EIFS/Stucco	Metal Siding	Sloped Roof	Flat Roof	Horizontal Banding	Vertical Element	Recess/Covered Window	
Administrative		0	•	•	•		•	0	0	0	
Community		0	•	•	•	0	0	0	0	0	
Family Housing	0	•	•	0	•	0	•	0	0	•	
Dormitory	•	0	•	•	•	•	•	0	0	0	0
Industrial/Maintenance	0	•	0	0	0	0	•	0	0	0	0
Medical	•	0	0	0	•	•		0	0	0	
Intelligence Campus	•		•	•	•	0	0	0	0	0	•
Vintage	0	0	•	0	0	0	•	0	0	0	0
■ = Mandatory □ = Optional ■ = Not Permitted											





Landscaped Buffer

Indigenous Plant Material

## 4.5.2 Landscape Development Guidelines

A basewide Landscape Plan serves as a guide for the development and management of the landscaped areas on the base. The following goals and principles are used in the landscape architectural design of the installation.

Use plant materials indigenous to the area to maximize survivability.

Maximize the xeriscape concept using low maintenance plants, ground covers, and heat-reducing mulches to reduce watering requirements.

Improve the overall quality of the base through aesthetic and functional applications of plant mat erial.

Use plant materials that minimize the environmental impact on facilities and improve environmental quality and energy conservation.



BT-13 Park

Visually reinforce hierarchy of road system.

Screen unsightly scenes.

Buffer incompatible land uses.

Use foundation planting to soften structural and architectural lines. This helps to integrate the building to the site and divert from unsightly views. (Example: dumpsters.)

Add variety and color to the landscape. Use plant materials with contrast and texture to create visual interest.

Use shrubs to define entries and to frame buildings.

Following are matrices indicating the design guidelines to be used for parking lots, pedestrian circulation, and landscape planting.

			KING ATM					ESTF					IDSC ANTI		
Design Guidelines	Off Street Parking	Curb/Underground	Hard Surface Striping	Landscape Planting	Landscape Island	Sidewalks	Handicap Access	Crosswalk Striping	Landscape/Shade	Central Points	Building Entry	Define Visual Areas	Control Wind/Solar	Screen Undesirable	Information Signs
Administrative		•	•		0		•	•	0		•	•	0	•	
Community					0	•			0	•		•	0	•	
Family Housing		•	•	0	0	•	•	•	0	•	0	0	0	0	
Dormitory					0				0		0	0	0	0	0
Industrial/Maintenance		0		0	0	0		0	0	0	0	0	0	0	0
Medical					0				0				0		
Intelligence Campus				0	0				0	0	0	0	0	0	0
Vintage				0	0				0	0	0	0	0	0	0
	= Mandatory														

### 4.5.3 Demolition Program

As recommended in Section 2.0 the Demolition Program will be used to consolidate similar land uses. The Demolition Program will focus on elimination of many WW II era buildings spread over the base and consolidating these functions into new highly efficient facilities. The buildings proposed for demolition and their associated replacement facilities are described below. Additionally the buildings planned for demolition are shown in Figure 4.24.

Demolish Bldgs 101, 104, 143, 145, 158, 300, 308, 318, 320, 339, 433, 434 and 734; construct a new Consolidated Wing Headquarters.

Demolish Bldgs 112, 113, and 141; construct a new Consolidated Communications Complex.

Demolish Bldgs 139 and 154; replace with a new Chapel Center.

Demolish Bldgs 201, 216, 410, 431, 433, 434, 443, 513, 514, and 515;

construct a new Consolidated Logistics Facility. (Buildings 433 and 434 will be demolished under this project if they are not demolished sooner under the Consolidated Wing Headquarters project.)

Demolish Bldg 155 after the construction of a new Addition to the Youth Center.

Demolish Facility Number 506 and 507, an abandoned non-potable water storage tank and pump house.

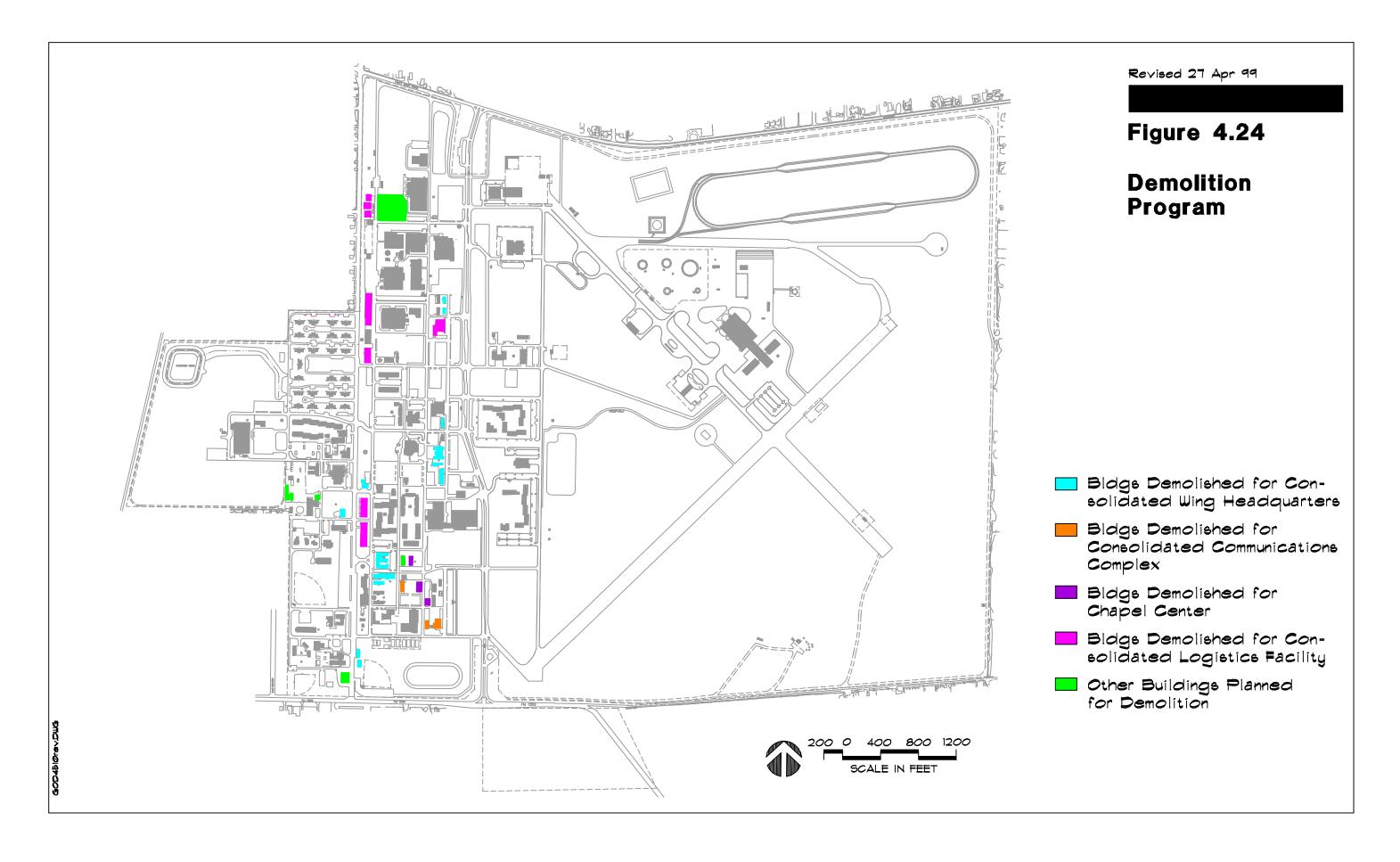
Demolish Bldg 904; replace with a new Gas Station.

Demolish Bldgs 726, 741, 742, 744, and 747; long range plan.

### 4.5.4 Major Projects

The Major Projects are identified by program type in the following list.

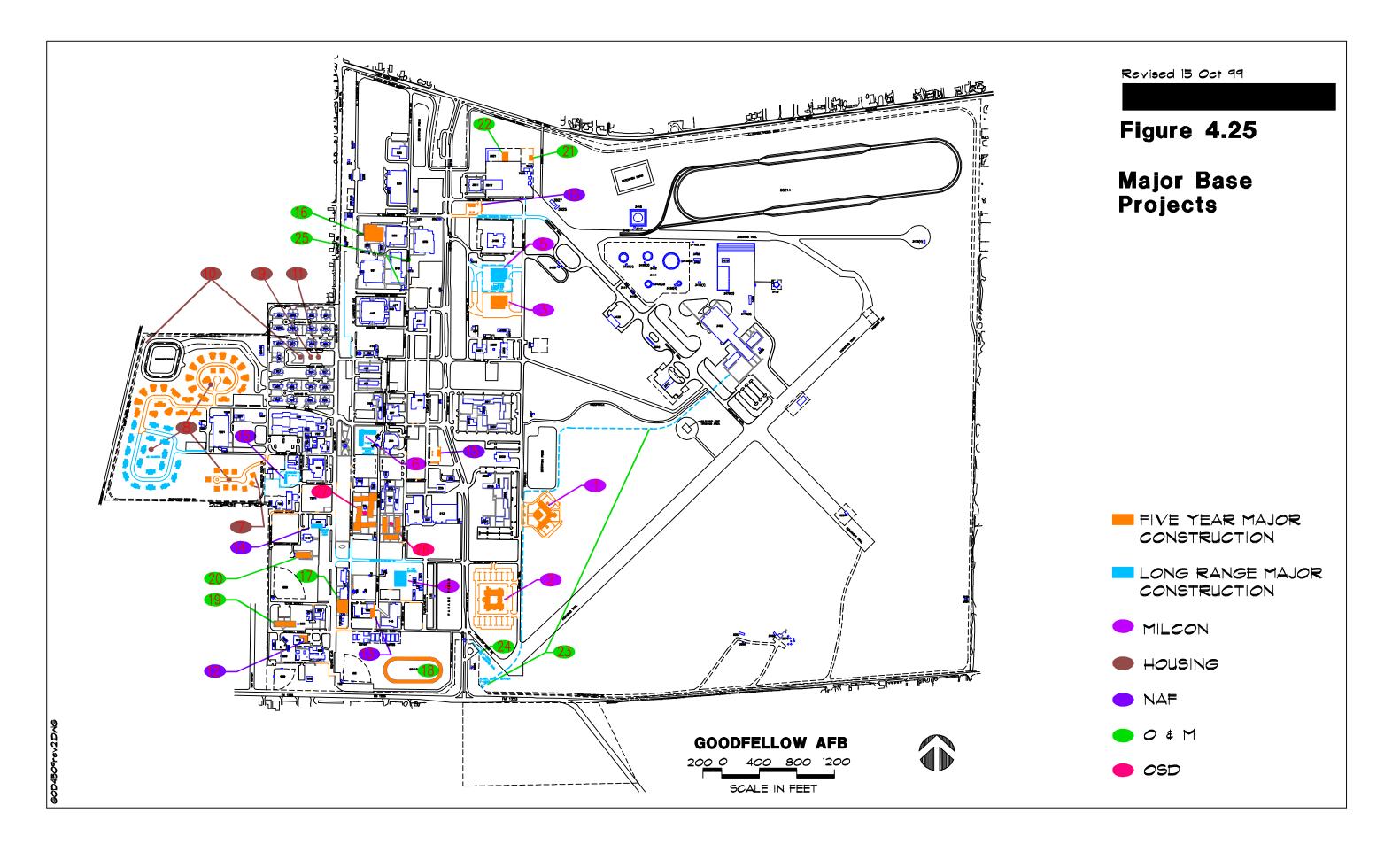
The Major Projects are illustrated in Figure 4.25.



MAP	DD0:===	DECORUNTION		PROG
KEY		DESCRIPTION  Compating to Charles to Description	(\$000)	TYPE
1	003000	Construct Student Dorm	\$7,300	MILCON
		Successful congressional insert to the FY99 MILCON Program. Construction start		
	040004	in 1999. 200-PN Pipeline-student dorm to replace substandard Dorms 401&409.	<b>MO 000</b>	MIL OOM
2	013001	Consolidated Wing Headquarters	\$8,900	MILCON
		Construct an efficiently configured, adequately sized consolidated complex for the		
		key command and base support functions that are scattered across the base in		
		13 WWII wood frame substandard facilities.		
3	023000	Consolidated Communications Complex	\$4,500	MILCON
		Construct an efficiently configured, adequately sized facility which consolidates		
		numerous comm functions basewide. These functions are currently spread		
		throughout the base in 11 old substandard buildings.		
4	043000	Chapel Center	\$2,600	MILCON
		Construct a complex providing modern worship, education, program support, and		
		administrative facilities to the Goodfellow religious community.		
5	983001	Consolidated Base Logistics Facility	\$6,000	MILCON
		A facility of adequate size and configuration required to accommodate the		
		processing and storage of supplies and equipment in support of the base's training		
		mission.		
6	973002	Construct Permanent Party Dorm	\$4,750	MILCON
		Construct a 96-person permanent party dorm to satisfy the 103-person deficit		
		resulting from the conversion of substandard central latrine dorms 241, 242, 243,		
		and 356 into the 1 + 1 standard. The construction of the 96-person dorm is the		
		nearest size available to fit the 1 + 1 standard design configuration.		
7	984501	Replace Family Housing Officers Quarters	\$500	Housing
		This project demolishes 3 poorly located WWII appropriated officer quarters and	•	J
		replaces them with two new, modern, senior officer housing units located in an		
		an area appropriately planned for increased housing by a private development.		
8	N/A	Family housing privatization initiative which provides 8 key & essential officer units	\$11,000	Housing
-		plus 52 enlisted quarters in the 6-year program and an additional 40 enlisted	+,000	
		quarters in the long term program.		
9	984004	Repair Lanham Housing Units (Energy repair/improvement program)	\$443	Housing
3	30 100-	A comprehensive energy upgrade to include matched highly efficient HVAC units,	ΨΉ	1 10001119
		ceiling insulation, and electrical service replacement.		
10	961056.2	Repair Storm Drain (Off Base)	\$300	Housing
10	301030 2	Project constructs an outflow pipe from existing detention pond and moves	ψ300	riousing
		runoff water through the City of San Angelo utility easements and discharges in		
		the Concho River.		
	064050.0		<b>Ф7</b> БО	Harrete
	961056 3	Repair Storm Drainage Military Family Housing	\$750	Housing
		Project constructs a subsurface storm sewer network in Lanham MFH area. The		
		network will collect the runoff water by curb inlets, grates, and area drains. The		
		collected water will discharge through an existing swale into a detention pond.		

MAP			PROG COST	PROG
KEY	PROJECT	DESCRIPTION	(\$000)	TYPE
11	991700B	Repair roads and parking areas in Lanham Housing area.	\$75	Housing
12	965002	Additions and Alterations to the Youth Center (Bldg 915)	\$630	NAF
		Provides adequate space for DOD mandated before and after school programs.		
		Project will add 3350 additional square feet.		
13	975000	Additions and Alterations to the Skills Development Center (Bldg 109)	\$910	NAF
		Project expands customer service and work areas, increases the number of		
		automotive work stalls and provides much needed storage/retail space. It also		
		expands the arts and craft area and classroom to allow for individual space for		
		patrons to work on projects.		
14	935001	Addition to the Bowling Alley (Bldg 800)	\$360	NAF
		Installation of 4 new lanes to the bowling center.		
15	925000	AAFES Service Station.		NAF
		Construct Car Wash.		
16	981039	Repair 4 Latrines in Critical Training Facility (Bldg 521)	\$110	O&M
		Sewage stop-ups and overflow causes frequent training interruptions resulting in		
		substantial training-mission degradation.		
17	981024	Repair (China Beach) Swimming Pool (Fac 123)	\$141	O&M
		Repairs piping, valves, filter system, pool surface and deck.		
18	901005	Repair Running Track	\$230	O&M
		Resurfaces deteriorated asphalt track with impact-absorbing rubberized surface.		
19	971029	Repair Temporary Lodging Facility (TLF), Boiler & Structural (Bldg 910)	\$370	O&M
		Replace 20+yr old boiler with new and upgrade to 4 pipe system.		
20	902401	Upgrade Base Theater (Bldg 812)	\$298	O&M
		Upgrades old undersized HVAC & installs fire suppression in this high use facility.		
21	991036	Ecological Controls Facility	\$185	O&M
		Relocates to CES complex and upgrades old, remote, and non-compliant shop.		
22	021010	Addition to Base Civil Engineer Complex	\$450	O&M
		Consolidates all the CE Operations functions.		
23	951024 1	Loop Electrical/Switch/Feeders	\$625	O&M
		Project repairs the base electrical system by providing backfeed capability to the		
		DOD Fire School and the supporting areas. It also increases feeder capacity to		
		the dorm area which houses 1000 students.		
	961023 1	Install South Switchgear and Feeders Phase 1	\$535	O&M
		Installs feeders and a switchgear from metering point to existing southern circuits		
		on base. This will provide switching capability between the north and south		
		switching stations, giving additional sectionalization, backfeeding, and redundancy.		
	961034D	IDIQ Electric Repair (Poleway)	\$432	O&M
		Replaces antiquated overhead distribution system with a reliable underground		
		electrical system. Greatly enhances base appearance.		
24	981007	Construct Visitor Center at South Gate	\$167	O&M
		This project constructs a Security Forces visitor control center. The facility will		
		also function as the Security Forces pass and registration office.		

MAP KEY	PROJECT	DESCRIPTION	PROG COST (\$000)	PROG TYPE
25	951037 1	Repair ECP and Troopwalk SCIF	\$250	O&M
		This project remodels Bldg 517 and it will replace the existing asphalt with a plaza		
		area.		
26	001003	Upgrade Dorm 238	\$1,468	
	971030	Upgrade Dorm (VAQ) 239	\$1,468	
	011001	Upgrade Dorm 240	\$1,468	OSD
		These projects upgrade the dorm to the Air Force policy for Quality of Life.		
		Improvements include remodeling the interior, replacing lighting, replacing doors		
		with window panels and weather-stripping, installing a new sprinkler system, and		
		upgrading the HVAC systems.		
27	991030	Repair Roofs on Base Dorms (Bldgs 255 and 257)	\$206	OSD
		20 year-old deteriorated roofs have had no repair since original construction.		
	981015	Repair Dorm Interior 250	\$1,102	
	981017	Repair Dorm Interior 252	\$1,040	OSD
	981018	Repair Dorm Interior 255	\$1,157	OSD
	981019	Repair Dorm Interior 257	\$1,100	OSD
		These projects upgrade the dorms to the Air Force policy for Quality of Life.		
		Improvements include remodeling the interior, replacing lighting, replacing doors		
		with window panels and weather-stripping, installing a new sprinkler system, and		
		upgrading the HVAC systems.		
	001002	Upgrade Laundry/Dayroom 251 & 256	\$155	OSD
		These projects will upgrade the interior of the laundry facility. The upgrade will		
		include painting the interior, replacing the lighting, and replacing the shelving. It		
		also repairs the HVAC and fire alarm system.		



# **General Plan Maintenance** and Revision

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# **General Plan Maintenance**and Revision

### 5.1 REVIEW PROCESS

The proponent of this General Plan (GP) for Goodfellow AFB is the Base Civil Engineer. The civil engineering staff promotes and oversees the review effort. Attention must be given to the review of the GP by the Base Development Staff, as this is an important tool used in base development. This document affects the installation's development activities, and consideration must be given to its distribution among major units.

The Air Education and Training Command (AETC), Directorate of Civil Engineering, Environmental management Division (CEVN), provides guidance and review.

# 5.2 CONTACTS FOR RECOMMENDATIONS AND CHANGES

Corrections, changes, additional information, or other data pertinent to this General Plan will be directed to:

Richard Holder 17 CES/CECP 460 East Kearney Boulevard Goodfellow AFB, TX 76908-4122 (915) 654-3900

# 5.3 UPDATING AND PRODUCTION

The Base Development Staff is responsible for the update of the General Plan. Those pages requiring changes will be developed, reproduced, and distributed to the major units for insertion into their General Plan notebook. Civil Engineering personnel will update Microsoft Word files and AutoCAD files. In order to make periodic updates of the general plan more efficient for local production, the staff has converted the text files provided by the contractor into double column Microsoft Word format with the photographs imported into the text files. This allows all the text to be revised and printed using Microsoft Word. The maps will be digitally updated using AutoCAD and printed on a color plotter. Then the updated text and maps can both be duplicated by a color copier.

# Appendices

Bibliography	page A-
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## Appendix A

### **BIBLIOGRAPHY**

#### **SECTION 1.0 INTRODUCTION**

Air Force Comprehensive Planning, AFI 32-7062.

### **SECTION 2.0 PLAN FINDINGS AND RECOMMENDATIONS**

Findings and Recommendations Developed With and Updated by Personnel From the 17th Civil Engineer Squadron.

### **SECTION 3.0 INSTALLATION AND VICINITY PROFILE**

17th Training Wing Biographies and Fact Sheets, Information From Office of Public Affairs.

"21st Century Vision," Goodfellow Air Force Base, 3498th Civil Engineering Squadron.

CINC's Installation Excellence Award, Goodfellow Air Force Base.

Base C4I Systems Blueprint, Goodfellow Air Force Base, Texas (excerpts), 38th EIW/ESB, Tinker Air Force Base, Oklahoma.

Base Comprehensive Plan, Goodfellow Air Force Base.

Base Comprehensive Planning Supplement, 17 CES/CECP, Holder, Richard.

A Brief History of Goodfellow AFB and the 17th Training Wing, Office of History, HQ 17th Training Wing, Goodfellow Air Force Base, Texas.

Cultural Resource Assessment, Goodfellow Air Force Base, Tom Green County, Texas, National Park Service, U.S. Department of the Interior, De Vore, Steven L.

Economic Resource Impact Statement, Fiscal Year 1995, 17th Training Wing, Goodfellow Air Force Base.

Environmental Assessment, Construction and Demolition Projects, Goodfellow Air Force Base, Texas, 17th Training Wing.

"The Goodfellow Installation Guide," 17th Training Wing, Public Affairs.

Goodfellow Data Summary, Financial Analysis Office Comptroller, 17th Training Wing.

Historical Photographs Provided by the Office of History, HQ 17th Training Wing, Goodfellow Air Force Base, Texas.

"San Angelo Living '96, A City Sourcebook," San Angelo Standard-Times.

San Angelo Street Map Including Goodfellow AFB, San Angelo Chamber of Commerce.

#### **SECTION 4.0 GENERAL PLAN - COMPONENT OVERVIEW**

"21st Century Vision," Goodfellow Air Force Base, 3498th Civil Engineering Squadron.

AF-EMIS Hazardous Material and Hazardous Waste Management Brochure, Air Force Center for Environmental Excellence.

Base C4I Systems Blueprint, Goodfellow Air Force Base, Texas (excerpts), 38th EIW/ESB, Tinker Air Force Base, Oklahoma.

Base Comprehensive Plan, Goodfellow Air Force Base.

Base Comprehensive Planning Supplement, 17 CES/CECP, Holder, Richard.

Biological Survey of Goodfellow Air Force Base, Final Report, Texas Natural Heritage Program.

Commanders' Facility Assessment, Goodfellow AFB.

"Computer System Tracks Hazardous Materials," Goodfellow Monitor, Page 6.

Cultural Resource Assessment, Goodfellow Air Force Base, Tom Green County, Texas, National Park Service, U.S. Department of the Interior, De Vore, Steven I

Environmental Assessment, Construction and Demolition Projects, Goodfellow Air Force Base, Texas, 17th Training Wing.

Facility Infrastructure Examination Program, Air Education and Training Command, Magee, James P., P.E.

Goodfellow Air Force Base Air Emissions Inventory Report, Final, Radian International, LLC.

Infrastructure Report, Goodfellow AFB.

Installation Restoration Program History at Goodfellow -- Talking Paper.

Integrated Natural Resource Management Plan for Goodfellow Air Force Base, Texas.

Landscape Plan, Goodfellow Air Force Base, San Angelo, Texas.

Planning Assistance Team Study, Goodfellow AFB, Texas.

Real Property Inventory, Goodfellow Air Force Base.

San Angelo Street Map Including Goodfellow AFB, San Angelo Chamber of Commerce.

Soil Survey of Tom Green County, Texas, United States Department of Agriculture, Soil Conservation Service.

Suspect Vehicle Inspection Area -- Talking Paper, Goodfellow Air Force Base.

Tree Inventory Report and Management Plan for Goodfellow Air Force Base, San Angelo, Texas, ACRT, Inc.

Waste Streams / IAP's Inventory, Goodfellow Air Force Base.

### SECTION 5.0 GENERAL PLAN MAINTENANCE AND REVISION

Air Force Comprehensive Planning, AFI 32-7062.

Information Developed With Personnel From the 17th Civil Engineer Squadron, Goodfellow Air Force Base, Texas, and HQ Air Education and Training Command, Randolph Air Force Base, Texas.

## Appendix B

### **Acronyms and Abbreviations**

AAFES Army Air Force Exchange Services
AETC Air Education and Training Command

AF-EMIS Air Force - Environmental Management Information System

AFB Air Force Base

AFCEE Air Force Center for Environmental Excellence

AFI Air Force Instruction AOC Areas of Concern

AST Aboveground Storage Tank
ATC Air Training Command

BCP Base Comprehensive Plan

BIDDS Base Information Digital Distribution System

BX Base Exchange

C4I Command, Control, Communications, Computers, and Intelligence

CES Civil Engineering Squadron

CEV Civil Engineering Environmental Flight

DoD Department of Defense

ECM Energy Conservation Measures
EIFS Exterior Insulation and Finish System
EPA Environmental Protection Agency

eps encapsulated postscript

ERA Environmental Restoration Account
ESPC Energy Savings Performance Contract

FIX Facility Infrastructure Examination

FY Fiscal Year

GP General Plan

HQ Headquarters

HVAC Heating, Ventilating, Air Conditioning, and Cooling Systems

IAP Initial Accumulation Point
IDQ Indefinite Delivery Quantity
ITN Information Transfer Nodes
IRP Installation Restoration Program

LBP Lead Based Paint

LF Landfill

MED Medical

MFB Military Family Housing Maintenance and Repair

MFH Military Family Housing

MFH Military Family Housing Construction
MILCON Military Construction (Program)
MWR Morale, Welfare, and Recreation

NAF Non-Appropriated Fund

NFRAP No Further Response Action Plan

O&M Operations and Maintenance

OTH Other

PC Personal Computer
PCB Polychlorinated Biphenyl
POL Petroleum, Oil, and Lubricants

PVC Polyvinyl Chloride Pipe

QD Quantity Distance

SABER Simplified Acquisition of Base Engineering Requirements

SCIF Special Compartmental Intelligence Facility

SS Storage Site ST Storage Tank

US United States

USA United States of America
USAF United States Air Force
UST Underground Storage Tank

WTU West Texas Utilities

WWII World War II



Air Education and Training Command